CLAIMS

1. A process for the manufacturing of a decorative surface element, which element comprises a base layer and a decorative upper surface, c h a r a c t e r i s e d in that,
   i) a wetting repellent lacquer is printed in a predetermined pattern on the decorative upper surface, the wetting repellent lacquer covering only parts of the decorative upper surface whereupon,
   ii) a wear layer of a UV or electron beam curing lacquer is applied on top of the decorative upper surface which UV or electron beam curing lacquer is repelled from the parts of the surface being covered by the wetting repellent lacquer whereby a surface structure is achieved.

2. A process according to claim 1, ~~c h a r a c t e r i s e d~~ CHARACTERIZED in that the UV or electron beam curing lacquer consists of an acrylic, epoxy or a maleimide lacquer.

3. A process according to claim 1 ~~or 2~~, ~~c h a r a c t e r i s e d~~ CHARACTERIZED in that the wear layer is applied in several steps with intermediate partial curing.

4. A process according to ~~any of the claims 1 – 3, c h a r a c t e r i s e d~~ CLAIM 1, CHARACTERIZED in that the wear layer includes hard particles with an average particle size in the range 50nm - 150µm.

5. A process according to claim 4, ~~c h a r a c t e r i s e d~~ CHARACTERIZED in that the hard particles consists of for example silicon oxide, α-aluminium oxide or silicon carbide.

6. A process according to claim 4, ~~c h a r a c t e r i s e d~~ CHARACTERIZED in that the main part of the hard particles consists of for example silicon oxide, α-aluminium oxide or silicon carbide while a smaller amount of the hard particles consist of diamond.

7. A process according to claim 6, ~~c h a r a c t e r i s e d~~ CHARACTERIZED in that the hard particles consisting of diamond is in the average particle size range 50nm - 2µm and is placed close to the upper surface of the wear layer.

8. A process according to claim 1, ~~characterised~~ CHARACTERIZED in that the wetting repellent lacquer is constituted of a UV or electron beam curing lacquer with a content of silicone polymer.

9. A process according to claim 8, ~~characterised~~ CHARACTERIZED in that the wetting repellent lacquer comprises UV or electron beam curing acrylic, epoxy or a maleimide lacquer.

10. A process according to claim 8 ~~or 9~~, ~~characterised~~ CHARACTERIZED in that the wetting repellent lacquer is translucent.

11. A process according to claim 8 ~~or 9~~, ~~characterised~~ CHARACTERIZED in that the wetting repellent lacquer is semi-translucent.

12. A process according to claim 11, ~~characterised~~ CHARACTERIZED in that the wetting repellent lacquer includes pigmentation which creates a structure enhancing shadow effect in the structure.

13. A process according to claim 11, ~~characterised~~ CHARACTERIZED in that the wetting repellent lacquer includes a matting agent which creates a structure enhancing effect in the structure.

14. A process according to claim 8 ~~or 9~~, ~~characterised~~ CHARACTERIZED in that the wetting repellent lacquer is cured before the step where the wear layer is applied.

15. A process according to claim 1, ~~characterised~~ CHARACTERIZED in that the decorative upper surface comprises a decor layer, which decor layer originates from a digitally stored original, that the digitally stored original is processed in order to achieve a digital structure original whereby a surface structure that in every essential aspect matches the decor is achieved.

16. A process according to claim 8 ~~or 11~~, ~~characterised~~ CHARACTERIZED in that the wetting repellent lacquer is applied by means of an ink-jet printer.

17. A process according to claim 1, ~~characterised~~ CHARACTERIZED in that the base layer consists of a particle board or a fibre board.

18. A process according to claim 1, c~~haracterised~~ CHARACTERIZED in that the base layer consists mainly of a polymer such as polyurethane.